

January 31, 2002

Mr. Aaron Nissen  
Intermountain Power Service Corporation  
850 Brush Wellman Road  
Delta UT 84624

Dear Aaron:

I finally had a day to devote to your vibration analysis. I could have done it sooner if I had to, but someone else's immediate crisis would probably have been impacted.

I appreciate your advance planning and your patience.

I was impressed with the accuracy of your calculations. Did you, or whomever performed them, do them graphically, or with a calculator/computer program?

I recommend that you inventory all the weights in the unit, as sometimes a shot can be accomplished by moving existing weights.

I assume that the key phase probe is in line with the shaft rider probes, as your calculations did not include an adjustment for any offset. I assume that the painted phase angles have zero in line with the key phase notch in the rotor, and the phase angles increase going against rotation.

It is usually worthwhile to use full size standard factory weights whenever possible. However, I believe that your LP standard factory weights are 10.5 oz each, which are sometimes a little too heavy. Could you send me a weight list of the standard factory weights for your units? Your HP and IP weights are probably either 5.6 oz (2 1/2" long) or 6.6 oz (2 7/8" long). Your generator weights are probably 4.3 oz if they are 1" long. The coupling weights are probably 1 ounce each.

It would be a good idea to have some Alstom HP Rotor weights and insertion tools on hand, even though you probably won't need them.

I'll be in Salt Lake at the Gadsby Plant this weekend (2/2 - 2/3). Call me at (303) 752 2604 if there is any reason for me to come to Delta on Monday (2/5) before I go to Baltimore later in the week.

When are your shut down and start-up dates for the Unit 2 outage in March? I'll be available by phone/fax/e-mail during that period. I'm scheduled for work in Colorado and Texas in late March and early April, but I could probably fly to Delta if you had an urgent need.

I'll be at the J. K. Spruce start-up in San Antonio on April 19. It's a GE G2 Turbine that